

TWO NEW BDELLOIDA COMMENSAL IN THE BRANCHIAL CAVITIES OF
TELPHUSA FLUVIATILIS, LMK.

BY SEBASTIANO PIOVANELLI.

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WHILE examining the branchial cavities of the common Italian fresh-water crab, *Telphusa fluviatilis*, I found two forms of Bdelloid Rotifera commensal therein and not referable to described species, one having distinctive characters of such importance that I propose to place it in a new genus.

Mr. Bryce has very generously aided me with valuable information and advice in compiling the following descriptions. The observations on which these descriptions are based have been made in Professor Decio Vinciguerra's laboratory in the R. Stazione di Piscicoltura, Museo Agrario, Rome, and under his guidance and supervision.

CALLIDINA CANCROPHILA, n. sp.

Slender and parallel-sided, 426—530 μ in length. Skin smooth, with dorsal and lateral longitudinal folds. Colour greenish grey. Width of corona, 67 μ , scarcely more than collar; of neck, 53 μ . Rami formula, 2/2; length, 27 μ ; maximum width of each ramus, 11 μ . Antenna rather flattened antero-posteriorly, about 16 μ long. On the first cervical, at each side of the antenna, a small boss of thickened hypodermis, which extends down each side of the segment in a slight and decreasing ridge. A rather prominently angular lateral outline is presented by the anal segment. The first foot segment, though smaller, presents, from dorsal or ventral view, a similar appearance, but the angularity is due to a deep thickening of the hypodermis, which increases to a boss dorsally. Foot of four joints, 93 μ long. Spurs stout and strong, pointed, with distinct heel; outside edge boldly convex, slightly angular at about one-third from tip; inner edge below heel nearly straight or slightly concave. They are somewhat rigidly attached and their pose is characteristic, as they are widely divergent, and rather erect relatively to the foot axis. Length, 25 μ ; interstice, 4 μ , convex. Toes three, rather stout.

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Anomopus, a new genus of the Family **Philodinadae**.

Gen. Ch.—Eyeless. Rostral lamellae present. Foot long, terminated by perforated adhesive disc. Spurs very small. Foot-glands built up of longitudinal series of cells, ducts not enclosed in a capsule.

A. TELPHUSAE, n. sp.

A smooth, elongated, flexible form, with dorsal and lateral longitudinal folds. Average length of adults, 600μ ; one exceptionally large individual, 738μ . Corona very wide, 120μ ; width of collar, 100μ ; of narrowest neck joint, 62μ . Sulcus shallow, about 41μ wide. Upper lip arched towards mouth, extending almost to the level of the discs, and sloping gently on each side down to a slight median notch or groove. Antenna stout, terminated by short setae, narrowed near base, resting on a flange; length, 21μ . Rami formula, $1 + 1^1 + 1$; length, 29μ ; maximum width of each ramus, 12μ . Foot very characteristic, of five joints, slender, very long, 132μ , the second joint rather the longest and having a ring-like thickening of the hypodermis about its middle. The narrow and elongate anal and preanal segments increase the apparent length of the foot. Spurs wide apart (interstice, 21μ), apparently perforate, rounded, almost pimple or nipple-shaped, with a slight basal constriction, externally about 3μ long, but having the appearance of being prolonged for several times their own length within the foot joint, which extends some way below them. Adhesive disc circular, 19μ diameter, pierced by numerous minute (less than 1μ diameter) perforations.

Only one series of large cells (length of largest, 35μ ; diameter of nuclei, 7μ) is clearly discernible as constituting each foot-gland, which extends some way above the anus into the trunk.

This species is frequently attacked externally by a saprophytic Cladothrix, which is sometimes in isolated hairs on the skin sometimes in tufts, and sometimes forms a furry coating.

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